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#8	Search **pf155 and plasmodium falciparum and MSP and chimeric or fusion proteins** Limits: **Publication Date to 1998**	22:33:52	42464
#5	Search **pf155 and plasmodium falciparum and MSP** Limits: **Publication Date to 1998**	22:31:57	0
#4	Search **pf155 and plasmodium falciparum** Field: **All Fields,** Limits: **Publication Date to 1998**	22:31:26	107
#3	Search	22:29:15	0
#1	Search **pf155 and plasmodium falciparum**	22:28:12	118

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1: Parasitology 1988 Dec;97 (Pt 3):373-82 Related Articles, NEW Links

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A hybrid gene to express protein epitopes from both sporozoite and merozoite surface antigens of Plasmodium falciparum.

Holder AA, Lockyer MJ, Hardy GW.

Department of Molecular Biology, Wellcome Research Laboratories, Beckenham, Kent.

The DNA coding for parts of the repetitive amino acid sequence of Plasmodium falciparum circumsporozoite protein has been spliced to a sequence encoding part of the precursor to the major merozoite surface antigens, to produce a hybrid gene. Expression in Escherichia coli produces a protein with antigenic determinants from both malaria proteins. Antibodies raised against the expressed material react with both a peptide derived from the circumsporozoite repeat sequence, and the merozoite surface molecule. Hybrid molecules of this type may be the basis of a malaria vaccine.

PMID: 2464153 [PubMed - indexed for MEDLINE]

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(FILE 'HOME' ENTERED AT 21:19:34 ON 23 SEP 2002)

     FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,
     USPATFULL, JAPIO' ENTERED AT 21:19:47 ON 23 SEP 2002
L1        135462 S PLASMODIUM
L2       1522766 S (FUSION OR CHIMERIC  OR RECOMBINANT)
L3          9469 S L1 AND L2
L4           318 S LIVER STAGE ANTIGEN
L5          3011 S MEROZOITE SURFACE PROTEIN
L6           431 S APICAL MEMBRANE ANTIGEN
L7           290 S ERYTHROCYTE BINDING ANTIGEN
L8           396 S RHOPTRY ASSOCIATED PROTEIN
L9            35 S L4 AND L5
L10           17 S L4 AND L6
L11            3 S L4 AND L7
L12            3 S L4 AND L8
L13           10 S L9 AND L2
L14         3311 S L 10 AND L2
L15            9 S L10 AND L2
L16            2 S L11 AND L2
L17            2 S L12 AND L2
L18            4 DUP REM L13 (6 DUPLICATES REMOVED)
L19            3 DUP REM L15 (6 DUPLICATES REMOVED)
L20           63 S L5 AND L6
L21           28 S L5 AND L7
L22           41 S L5 AND L8
L23           23 S L20 AND L2
L24           16 DUP REM L23 (7 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 21:46:08 ON 23 SEP 2002
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L26            0 S L22 AND L2

     FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,
     USPATFULL, JAPIO' ENTERED AT 21:49:53 ON 23 SEP 2002
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     USPATFULL, JAPIO' ENTERED AT 21:53:46 ON 23 SEP 2002
L29           12 S L22 AND L2
L30            6 DUP REM L29 (6 DUPLICATES REMOVED)
L31           14 S L6 AND L7
L32           27 S L6 AND L8
L33           12 S L7 AND L8
L34            9 S L31 AND L2
L35           18 S L32 AND L2
L36            2 S L33 AND L2
L37            5 DUP REM L34 (4 DUPLICATES REMOVED)
L38            6 DUP REM L35 (12 DUPLICATES REMOVED)
L39            2 DUP REM L36 (0 DUPLICATES REMOVED)

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#14	Search **recombinant protein and Plasmodium falciparum and life stages** Limits: **Publication Date to 1999**	17:57:16	1
#9	Search **malaria vaccine and epitopes and Plasmodium falciparum** Field: **All Fields,** Limits: **Publication Date to 1999**	17:29:55	129
#7	Search **malaria vaccine and epitopes and Plasmodium falciparum**	17:26:35	168
#6	Search **malaria vaccine and epitopes and Plsmodium falciparum**	17:26:28	172
#4	Search **malaria vaccine and epitopes**	17:23:57	224
#3	Search **malaria vaccine and eptiopes**	17:23:47	0
#2	Search **malaria vaccine and mulivalent**	17:23:34	1000
#1	Search **malaria vaccine**	17:23:21	1000

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(FILE 'HOME' ENTERED AT 17:59:44 ON 23 SEP 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 17:59:55 ON 23 SEP 2002

L1	27	S	PLAMODIUM FALCIPARUM
L2	79333	S	PLASMODIUM FALCIPARUM
L3	867317	S	RECOMBINANT
L4	162837	S	FUSION PROTEIN
L5	9520	S	LIFE STAGES
L6	5536	S	L2 AND L3
L7	954	S	L6 AND L4
L8	2	S	L7 AND L5
L9	4	S	L6 AND L5
L10	9	S	L6 AND CSP AND MSP-1

=>

8 ANSWER 1 OF 2 USPATFULL
AB Genes coding for novel Group B Eimeria tenella protein immunogens have been isolated and inserted into a novel expression vector which in turn has been used to transform appropriate hosts. The transformed host cells produce **recombinant** Group B E. tenella proteins which are capable of inducing immunity in chickens to coccidiosis.
AN 1998:128244 USPATFULL
TI **Recombinant** and native group B eimeria tenella immunogens useful as coccidiosis vaccines
IN Profous-Juchelka, Helen, Staten Island, NY, United States
Turner, Mervyn J., Westfield, NJ, United States
Liberator, Paul A., Holmdel, NJ, United States
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PI US 5824656 19981020
AI US 1995-458590 19950602 (8)
RLI Continuation-in-part of Ser. No. US 1993-87914, filed on 6 Jul 1993, now abandoned which is a continuation of Ser. No. US 1991-695485, filed on 3 May 1991, now abandoned which is a continuation of Ser. No. US 1990-588510, filed on 21 Sep 1990, now abandoned which is a continuation of Ser. No. US 1988-286936, filed on 22 Dec 1988, now abandoned which is a continuation of Ser. No. US 1988-145802, filed on 15 Jan 1988, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Feisee, Lila; Assistant Examiner: Bansal, Geetha P.
LREP Yablonsky, Michael D., Tribble, Jack L.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1,3,4
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 3059
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 2 USPATFULL
AB An expression vector which can be used to express **fusion proteins** which are useful as immunogens. The vector is characterized as a 3.35 kilobase pair vector having origins for replication and selectivity markers for bacteria. The plasmid has an E. coli promotor segment, a CheY **fusion protein** sequence and a unique restriction site at the 3' end of the CheY segment for preparing a DNA segment which codes for a foreign protein to be expressed.
AN 90:91064 USPATFULL
TI Vector for the expression of **fusion proteins** and protein immunogens
IN Condra, Jon H., Abington, PA, United States
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PI US 4973551 19901127
AI US 1988-145800 19880115 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Teskin, Robin L.; Assistant Examiner: Ellis, Joan
LREP Tribble, Jack L., Pfeiffer, Hesna J.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 17:59:44 ON 23 SEP 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,

USPATFULL, JAPIO' ENTERED AT 17:59:55 ON 23 SEP 2002
L1 27 S PLAMODIUM FALCIPARUM
L2 79333 S PLASMODIUM FALCIPARUM
L3 867317 S RECOMBINANT
L4 162837 S FUSION PROTEIN
L5 9520 S LIFE STAGES
L6 5536 S L2 AND L3
L7 954 S L6 AND L4
L8 2 S L7 AND L5

=> s l6 and l5
L9 4 L6 AND L5

=> d ab bib l9 1-4

L9 ANSWER 1 OF 4 SCISEARCH COPYRIGHT 2002 ISI (R)
AB Malaria can be a very severe disease, particularly in young children, pregnant women (mostly in primipara), and malaria naive adults, and currently ranks among the most prevalent infections in tropical and subtropical areas throughout the world. The widespread occurrence and the increased incidence of malaria in many countries, caused by drug-resistant parasites (**Plasmodium falciparum** and P. vivax) and insecticide-resistant vectors (Anopheles mosquitoes), indicate the need to develop new methods of controlling this disease.

Experimental vaccination with irradiated sporozoites can protect animals and humans against the disease, demonstrating the feasibility of developing an effective malaria vaccine. However, developing a universally effective, long lasting vaccine against this parasitic disease has been a difficult task, due to several problems. One difficulty stems from the complexity of the parasite's life cycle. During their life cycle, malaria parasites change their residence within the host, thus avoiding being re-exposed to the same immunological environment. These parasites also possess some distinct antigens, present at different **life stages** of the parasite, the so-called stage-specific antigens, While some of the stage-specific antigens can induce protective immune responses in the host, these responses are usually genetically restricted, this being another reason for delaying the development of a universally effective vaccine. The stage-specific antigens must be used as immunogens and introduced into the host by using a delivery system that should efficiently induce protective responses against the respective stages. Here we review several research approaches aimed at inducing protective anti-malaria immunity, overcoming the difficulties described above.
AN 2001:443881 SCISEARCH
GA The Genuine Article (R) Number: 437BP
TI Progress toward a malaria vaccine: Efficient induction of protective anti-malaria immunity
AU Tsuji M (Reprint); Rodrigues E G; Nussenzweig R S
CS NYU, Sch Med, Dept Med & Mol Parasitol, 341 E 25th St, New York, NY 10010 USA (Reprint); NYU, Sch Med, Dept Med & Mol Parasitol, New York, NY 10010 USA; Univ Fed Sao Paulo, Dept Microbiol Imunol & Parasitol, BR-04023062 Sao Paulo, Brazil
CYA USA; Brazil
SO BIOLOGICAL CHEMISTRY, (APR 2001) Vol. 382, No. 4, pp. 553-570.
Publisher: WALTER DE GRUYTER & CO, GENTHINER STRASSE 13, D-10785 BERLIN, GERMANY.
ISSN: 1431-6730.
DT General Review; Journal
LA English
REC Reference Count: 140
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 2 OF 4 USPATFULL
AB An electrochemical detection system which specifically detects selected nucleic acid segments is described. The system utilizes biological

probes such as nucleic acid or peptide nucleic acid probes which are complementary to and specifically hybridize with selected nucleic acid segments in order to generate a measurable current when an amperometric potential is applied. The electrochemical signal can be quantified.

AN 2002:116000 USPATFULL
TI Electrochemical detection of nucleic acid sequences
IN Henkens, Robert W., Beaufort, NC, United States
O'Daly, John P., Carrboro, NC, United States
Wojciechowski, Marek, Cary, NC, United States
Zhang, Honghua, San Diego, CA, United States
Naser, Najih, Orlando, FL, United States
Roe, R. Michael, Apex, NC, United States
Stewart, Thomas N., Durham, NC, United States
Thompson, Deborah M., Raleigh, NC, United States
Sundseth, Rebecca, Durham, NC, United States
Wegner, Steven E., Chapel Hill, NC, United States
PA Andcare, Inc., Durham, NC, United States (U.S. corporation)
PI US 6391558 B1 20020521
AI US 2000-549853 20000414 (9)
RLI Continuation-in-part of Ser. No. US 1998-44206, filed on 17 Mar 1998, now abandoned
PRAI US 1997-40949P 19970318 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP Akerman Senterfitt
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 22 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 4484
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 4 USPATFULL
AB Genes coding for novel Group B Eimeria tenella protein immunogens have been isolated and inserted into a novel expression vector which in turn has been used to transform appropriate hosts. The transformed host cells produce **recombinant** Group B E. tenella proteins which are capable of inducing immunity in chickens to coccidiosis.

AN 1998:128244 USPATFULL
TI **Recombinant** and native group B eimeria tenella immunogens useful as coccidiosis vaccines
IN Profous-Juchelka, Helen, Staten Island, NY, United States
Turner, Mervyn J., Westfield, NJ, United States
Liberator, Paul A., Holmdel, NJ, United States
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PI US 5824656 19981020
AI US 1995-458590 19950602 (8)
RLI Continuation-in-part of Ser. No. US 1993-87914, filed on 6 Jul 1993, now abandoned which is a continuation of Ser. No. US 1991-695485, filed on 3 May 1991, now abandoned which is a continuation of Ser. No. US 1990-588510, filed on 21 Sep 1990, now abandoned which is a continuation of Ser. No. US 1988-286936, filed on 22 Dec 1988, now abandoned which is a continuation of Ser. No. US 1988-145802, filed on 15 Jan 1988, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Feisee, Lila; Assistant Examiner: Bansal, Geetha P.
LREP Yablonsky, Michael D., Tribble, Jack L.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1,3,4
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 3059
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 4 USPATFULL
AB An expression vector which can be used to express fusion proteins which are useful as immunogens. The vector is characterized as a 3.35 kilobase pair vector having origins for replication and selectivity markers for bacteria. The plasmid has an E. coli promotor segment, a CheY fusion protein sequence and a unique restriction site at the 3' end of the CheY segment for preparing a DNA segment which codes for a foreign protein to be expressed.
AN 90:91064 USPATFULL
TI Vector for the expression of fusion proteins and protein immunogens
IN Condra, Jon H., Abington, PA, United States
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PI US 4973551 19901127
AI US 1988-145800 19880115 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Teskin, Robin L.; Assistant Examiner: Ellis, Joan
LREP Tribble, Jack L., Pfeiffer, Hesna J.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 17:59:44 ON 23 SEP 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 17:59:55 ON 23 SEP 2002
L1 27 S PLAMODIUM FALCIPARUM
L2 79333 S PLASMODIUM FALCIPARUM
L3 867317 S RECOMBINANT
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L7 954 S L6 AND L4
L8 2 S L7 AND L5
L9 4 S L6 AND L5

=> s l6 and CsP and MSP-1
8 FILES SEARCHED...
L10 9 L6 AND CSP AND MSP-1

=> d l10 ab bib 1-9

L10 ANSWER 1 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB The polymerase chain reaction (PCR) was employed for detection and strain identification of P. falciparum in a comparative field study of Indian isolates. The primers were selected from highly conserved regions flanking the variable, tandemly repeated regions of highly polymorphic cell surface antigens, major merozoite surface antigen-1 (**MSP-1**), major surface antigen-2 (MSP-2), circumsporozoite surface antigen (**CSP**) and ring-infected erythrocyte surface antigen (RESA). Out of the 52 microscopically positive P. falciparum infected field samples, 47 samples were positive by PCR. Variation in the size of the amplified products was observed using **MSP-1**, MSP-2 specific primers respectively in different field isolates of P. falciparum, but **CSP** and RESA did not exhibit any variation in size of the amplified product. The multiplex PCR results demonstrated that amplified products from these surface antigens vary in size and there is a specific pattern for each strain and this could be utilized to identify a particular field isolate. One P. falciparum infected field sample detected

by the above PCR method was found to be a mixed infection by two different strains. Five microscopically positive P. vivax infeced samples were also analyzed by PCR method using P. falciparum cell surface antigen (MSP-2) specific primers. PCR results showed one P. vivax infected sample was positive when P. falciparum specific primers were used, this could be due to inaccurate and reduced limit of detection of Plasmodial species by microscopic examination.

AN 2000:541964 BIOSIS
DN PREV200000541964
TI **Plasmodium falciparum**: Detection and strain identification of Indian isolates by polymerase chain reaction.
AU Sidhu, Amar Bir Singh; Madhubala, R. (1)
CS (1) School of Life Sciences, Jawaharlal Nehru University, New Delhi, 110067 India
SO Southeast Asian Journal of Tropical Medicine and Public Health, (June, 2000) Vol. 31, No. 2, pp. 213-218. print.
ISSN: 0125-1562.
DT Article
LA English
SL English

L10 ANSWER 2 OF 9 CABA COPYRIGHT 2002 CABI
AB Western blot analysis was performed to diagnose vivax malaria using stage-specific **recombinant** antigens [Korea Republic]. Genomic DNA from the whole blood cell of a malaria patient was used as templates to amplify the coding regions for the antigenic domains of circumsporozoite protein (**CSP**-1, GenBank Accession No. M34697), merozoite surface protein (**MSP-1**, M60807), apical merozoite antigen (AMA-1, AF063138), serine repeat antigen (SERA, AF052747) and exported antigen (EXP-1, X05074) of Plasmodium vivax. Each amplified DNA fragment was inserted into a pGEX-4T plasmid to induce the expression of GST fusion protein in Escherichia coli by isopropyl- beta -D-thiogalactoside (IPTG). The bacterial cell extracts were separated on 10% SDS-PAGE followed by western blot analysis with patient sera which was confirmed by blood smear examination. When applied with patient sera, 147 (91.9%) out of 160 vivax malaria, 12 (92.3%) out of 13 falciparum malaria and all 9 vivax/falciparum mixed malaria reacted with at least one antigen, while no reactions occurred with 20 normal uninfected sera. In the case of vivax malaria, **CSP**-1 reacted with 128 (80.0%) sera, **MSP-1** with 102 (63.8%), AMA-1 with 128 (80.0%), SERA with 115 (71.9%) and EXP-1 with 89 (55.6%), respectively. Higher detection rates were obtained when 5 antigens were used (91.9%) rather than when each antigen was used solely (55.6-80%), a combination of 2 (76.3-87.5%), 3 (85.6-90.6%), or 4 antigens (89.4-91.3%). This method can be applied to serological diagnosis, mass screening in endemic regions or safety test in transfusion of prevalent vivax malaria.
AN 2001:96767 CABA
DN 20013093036
TI Western blot diagnosis of vivax malaria with multiple stage-specific antigens of the parasite
AU Son EuiSun; Kim TongSoo; Nam HoWoo; Son, E. S.; Kim, T. S.; Nam, H. W.
CS Department of Parasitology and Catholic Institute of Parasitic Diseases, Catholic University of Korea, Seoul 137-701, Korea Republic.
SO Korean Journal of Parasitology, (2001) Vol. 39, No. 2, pp. 171-176. 24 ref.
ISSN: 0023-4001
DT Journal
LA English

L10 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
AB We expressed the main surface antigen of **Plasmodium falciparum** sporozoites, the circumsporozoite protein (**CSP**), in High Five (Trichoplusia ni) insect cells using the baculovirus system. Significant amts. of the **recombinant** protein could be

obtained, as judged by SDS-PAGE, Western blot, and immunofluorescence anal. The cellular localization for **recombinant CSP** was detd. by immunofluorescence. The high fluorescence signal of the permeabilized cells, relative to that of fixed nonpermeabilized cells, revealed a clear intracellular localization of this surface antigen. Anal. of possible posttranslational modifications of **CSP** showed that this **recombinant** protein is only N-glycosylated in the baculovirus system. Although DNA-sequence anal. revealed a GPI-cleavage/attachment site, no GPI anchor could be demonstrated. These analyses show that the glycosylation status of this **recombinant** protein may not reflect its native form in P. falciparum. The impact of these findings on vaccine development will be discussed.Index descriptors and abbreviations: Glycosylphosphatidylinositol; Circumsporozoite; Insect cells; Baculovirus; ER, endoplasmic reticulum; ETL, early-to-late; GPI, glycosylphosphatidylinositol; mAb, monoclonal antibody; **CSP**, circumsporozoite protein; IFA, indirect immunofluorescence assay; m.o.i., multiplicity of infection; PBS, phosphate-buffered saline; p.i., postinfection; PI-PLC, phosphatidylinositol-specific phospholipase C; **MSP-1**, merozoite surface protein 1; SDS-PAGE, sodium dodecyl sulfate-polyacrylamide gel electrophoresis.

AN 2002:702503 CAPLUS

TI **Plasmodium falciparum**: glycosylation status of **Plasmodium falciparum** circumsporozoite protein expressed in the baculovirus system

AU Kedees, Mamdouh H.; Azzouz, Nahid; Gerold, Peter; Shams-Eldin, Hosam; Iqbal, Jahangir; Eckert, Volker; Schwarz, Ralph T.

CS Institut fur Virologie, Medizinisches Zentrum fur Hygiene und Medizinische Mikrobiologie, Philipps-Universitat Marburg, Robert-Koch-Strasse 17, Marburg 35037, Germany

SO Experimental Parasitology (2002), 101(1), 64-68
CODEN: EXPAAA; ISSN: 0014-4894

PB Elsevier Science

DT Journal

LA English

L10 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS

AB We constructed a live **recombinant** vaccinia virus vaccine candidate contg. a synthesized hybrid gene termed 'HGFSP' encoding circumsporozoite protein (**CSP**), major merozoite surface antigen-1(MSA1), major merozoite surface antigen-2 (MSA2), and ring-infected erythrocyte surface antigen (RESA) of **Plasmodium falciparum**, interleukin-1 (IL-1) and tetanus toxin (TT) epitopes. Anti-**recombinant** vaccinia virus rabbit sera and IgG were tested in inhibition expts. in vitro. Results showed that the **recombinant** vaccinia virus had some capability to inhibit the growth of P. falciparum in vitro. The sera of rabbits, rats, and mice immunized with **recombinant** virus showed obvious IL-2 activity 4-6 wk after immunization. The interferon (IFN) level of sera from these animals 6 wk after immunization was significantly higher than before immunization. These results indicate that the **recombinant** vaccinia virus can stimulate cell mediated responses (Th1 cell response) in immunized animals, and has the capability to inhibit multiplication of in vitro cultured P. falciparum. Thus this **recombinant** vaccinia virus is an appropriate vaccine candidate for further evaluation in Aotus monkey or human clin. trails.

AN 2001:97758 CAPLUS

DN 135:271437

TI Assessment of a vaccinia virus vectored multi-epitope live vaccine candidate for **Plasmodium falciparum**

AU Dong, W.; Li, M.; Bi, H.; Li, Y.; Wu, J.; Qu, L.

CS Institute of Tropical Medicine, First Military Medical University, Canton, 510515, Peop. Rep. China

SO International Journal for Parasitology (2001), 31(1), 57-62
CODEN: IJPYBT; ISSN: 0020-7519

PB Elsevier Science Ltd.
DT Journal
LA English
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
AB Nearly full-length Circumsporozoite protein (**CSP**) from **Plasmodium falciparum**, the C-terminal fragments from both P. falciparum and P. yoelii **CSP** and a fragment comprising 351 amino acids of P.vivax MSP1 were expressed in the slime mold Dictyostelium discoideum. Discoidin-tag expression vectors allowed both high yields of these proteins and their purifn. by a nearly single-step procedure. We exploited the galactose binding activity of Discoidin Ia to sep. the fusion proteins by affinity chromatog. on Sepharose-4B columns. Inclusion of a thrombin recognition site allowed cleavage of the Discoidin-tag from the fusion protein. Partial secretion of the protein was obtained via an ER independent pathway, whereas routing the **recombinant** proteins to the ER resulted in glycosylation and retention. Yields of proteins ranged from 0.08 to 3 mg l-1 depending on the protein sequence and the purifn. conditions. The recognition of purified MSP1 by sera from P. vivax malaria patients was used to confirm the native conformation of the protein expressed in Dictyostelium. The simple purifn. procedure described here, based on Sepharose-4B, should facilitate the expression and the large-scale purifn. of various Plasmodium polypeptides.
AN 2001:24086 CAPLUS
DN 135:104443
TI Expression and one-step purification of Plasmodium proteins in Dictyostelium
AU van Bemmelen, M. X.; Beghdadi-Rais, C.; Desponds, C.; Vargas, E.; Herrera, S.; Reymond, C. D.; Fasel, N.
CS Institut de Biologie Cellulaire et de Morphologie, Universite de Lausanne, Lausanne, CH-1005, Switz.
SO Molecular and Biochemical Parasitology (2000), 111(2), 377-390
CODEN: MBIPDP; ISSN: 0166-6851
PB Elsevier Science Ireland Ltd.
DT Journal
LA English
RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite **Plasmodium falciparum**. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite **Plasmodium falciparum** . A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite **Plasmodium falciparum**. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (**MSP-1**, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (**CSP** and SSP-2), and the gametocyte stage (Pfg27).
AN 2000:145032 CAPLUS
DN 132:206925
TI **Recombinant** multivalent malarial vaccine against **Plasmodium falciparum**
IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.
PA United States Dept. of Health and Human Services, USA; National Institute

of Immunology
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000011179	A1	20000302	WO 1999-US18869	19990819
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9957785	A1	20000314	AU 1999-57785	19990819
EP 1105487	A1	20010613	EP 1999-945095	19990819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI US 1998-97703P	P	19980821		
WO 1999-US18869	W	19990819		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 9 USPATFULL
AB Attenuated Salmonella mutants which constitutively express the Vi antigen are disclosed, as well as vaccines against typhoid fever containing the same, live vector vaccines containing the same, and DNA-mediated vaccines containing the same.
AN 2001:25436 USPATFULL
TI Attenuated mutants of salmonella which constitutively express the Vi antigen
IN Noriega, Fernando R., Baltimore, MD, United States
Sztein, Marcelo B., Columbia, MD, United States
Levine, Myron M., Columbia, MD, United States
PA University of Maryland, Baltimore, Baltimore, MD, United States (U.S. corporation)
PI US 6190669 B1 20010220
AI US 1998-76761 19980513 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Duffy, Patricia A.
LREP Sughrue, Mion, Zinn Macpeak & Seas. PLLC
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1873
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 8 OF 9 USPATFULL
AB An IgG1 monoclonal antibody, Navy Yoelii Liver Stage 3 (NYLS3) does not recognize sporozoites, but recognizes P. yoelii liver stage parasites within 6 hours of invasion of mouse hepatocytes, and throughout the hepatic and asexual erythrocytic stages of the life cycle. When added to primary cultures of mouse hepatocytes 24 hours after inoculation with P. yoelii sporozoites, when all sporozoites have invaded hepatocytes, NYLS3 eliminates up to 98% of liver stage parasites. Intravenous injection of NYLS3 into mice delays the onset and reduces the density of blood stage parasitemia after sporozoite or blood stage challenge. The protein recognized by this mAb is identified and designated P. yoelii hepatic

and erythrocytic stage protein, 17-kDa or PyHEP17. The gene encoding PyHEP17 and a DNA vaccine comprising exons of the DNA that encodes PyHEP17 are disclosed. A DNA vaccine consisting of exon 1 and part of exon 2 of the gene encoding PyHEP17 protects 86% of A/J mice, 33%-43% of B10.BR mice, 17%-29% of BALB/c mice and 14%-20% of B10.Q mice from development of blood-stage parasitemia. A combination of DNA vaccines consisting of a PyHEP17 DNA vaccine and a PyCSP DNA vaccine confers complete protection against development of blood-stage parasitemia in BALB/c mice and 71% protection in A/J and B10.BR mice. This DNA vaccine-induced protection may be additive. Combinations of other malaria antigens are covered. The application discloses the P. falciparum homolog of PyHEP17 and includes the means of identification of the PyHEP17 homologs of the other Plasmodium species which infect humans, specifically P. vivax, P. ovale and P. malariae.

AN 1998:119133 USPATFULL
TI Protective 17 KDA malaria hepatic and erythrocytic stage immunogen and gene
IN Hoffman, Stephen L., Gaithersburg, MD, United States
Charoenvit, Yupin, Silver Spring, MD, United States
Hedstrom, Richard C., Gaithersburg, MD, United States
Doolan, Denise L., Rockville, MD, United States
PA The United States of America as represented by the Secretary of the Navy, Washington, DC, United States (U.S. government)
PI US 5814617 19980929
AI US 1994-319704 19941007 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Cunningham, Thomas M.
LREP Spevack, A. David
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1590
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 9 OF 9 USPATFULL
AB What is described is a **recombinant** poxvirus, such as vaccinia or canarypox virus, containing foreign DNA from Plasmodium such as coding for at least one of **CSP**, PfSSP2, LSA-1, LSA-1-repeatless, MSA-1, SERA, AMA-1, Pfs25, MSA-1 N-terminal p83 and MSA-1 C-terminal gp42. What is also described is a vaccine containing the **recombinant** poxvirus for inducing an immunological response in a host animal inoculated with the vaccine. Preferred **recombinants** have attenuated virulence. In certain embodiments the vaccinia has deleted or disrupted the thymidine kinase gene, the hemorrhagic region, the A type inclusion body region, the host range gene region and, the large subunit, ribonucleotide reductase; and, contains coding sequences for **CSP**, PfSSP2, LSA-1-repeatless, MSA-1, SERA, AMA-1 and Pfs25. That embodiment is termed NYVAC-Pf7 and is a multicomponent, multistage vaccine since it codes for and expresses sporozoite proteins, liver stage proteins, blood stage proteins and, sexual stage proteins.

AN 1998:68528 USPATFULL
TI Malaria **recombinant** poxviruses
IN Paoletti, Enzo, Delmar, NY, United States
de Taisne, Charles, Lyons, France
Tine, John A., Scotia, NY, United States
PA Virogenetics Corporation, Troy, NY, United States (U.S. corporation)
PI US 5766597 19980616
AI US 1994-257073 19940609 (8)
RLI Continuation-in-part of Ser. No. US 1993-105483, filed on 12 Aug 1993, now patented, Pat. No. US 5494807 Ser. No. Ser. No. US 1994-178476, filed on 7 Jan 1994 Ser. No. Ser. No. US 1993-36217, filed on 24 Mar 1993, now patented, Pat. No. US 5364773 Ser. No. Ser. No. US

1993-102702, filed on 5 Aug 1993, now patented, Pat. No. US 5453364 And Ser. No. US 1993-75783, filed on 11 Jun 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Ser. No. Ser. No. US 1991-724109, filed on 1 Jul 1991, now abandoned Ser. No. Ser. No. US 1992-847977, filed on 3 Mar 1992, now abandoned And Ser. No. US 1992-852305, filed on 18 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-672183, filed on 20 Mar 1991, now abandoned , said Ser. No. US -105483 which is a continuation of Ser. No. US -847951 , said Ser. No. US -178476 which is a continuation of Ser. No. US -724109 , said Ser. No. US -36217 which is a continuation of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US -102702 which is a continuation of Ser. No. US -847977

DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 12 Drawing Figure(s); 41 Drawing Page(s)
LN.CNT 4740
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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